

ENT COOPERATION TREA

PCT

NOTIFICATION OF THE RECORDING OF A CHANGE

(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

Date of mailing (day/month/year) 05 June 2000 (05.06.00)
Applicant's or agent's file reference AER/P78589 WO
International application No. PCT/GB99/00346

From the INTERNATIONAL BUREAU

To:

BEN-NATHAN, Laurence, Albert
Urquhart-Dykes & Lord
30 Welbeck Street
London W1M 7PG
ROYAUME-UNI

IMPORTANT NOTIFICATION

International filing date (day/month/year)
02 February 1999 (02.02.99)

1. The following indications appeared on record concerning:

the applicant the inventor the agent the common representative

Name and Address BEN-NATHAN, Laurence, Albert Urquhart-Dykes & Lord 91 Wimpole Street London W1M 8AH United Kingdom	State of Nationality	State of Residence
	Telephone No. 0171 629 1771	
	Facsimile No. 0171 491 1216	
	Teleprinter No.	

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

the person the name the address the nationality the residence

Name and Address BEN-NATHAN, Laurence, Albert Urquhart-Dykes & Lord 30 Welbeck Street London W1M 7PG United Kingdom	State of Nationality	State of Residence
	Telephone No. 44-20-7487-1550	
	Facsimile No. 44-20-7487-1599	
	Teleprinter No.	

3. Further observations, if necessary:

4. A copy of this notification has been sent to:
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<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer H. Zhou Telephone No.: (41-22) 338.83.38
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ENT COOPERATION TREA

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION (PCT Rule 61.2)

Date of mailing (day/month/year)

01 November 1999 (01.11.99)

International application No.

PCT/GB99/00346

International filing date (day/month/year)

02 February 1999 (02.02.99)

To:
Assistant Commissioner for Patents
United States Patent and Trademark
Office
Box PCT
Washington, D.C.20231
ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

Applicant's or agent's file reference

AER/P78589 WO

Priority date (day/month/year)

04 February 1998 (04.02.98)

Applicant

TODD, John, James et al

1. The designated Office is hereby notified of its election made:

in the demand filed with the International Preliminary Examining Authority on:

27 August 1999 (27.08.99)

in a notice effecting later election filed with the International Bureau on:

2. The election was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

S. Mafla

Facsimile No.: (41-22) 740.14.35

Telephone No.: (41-22) 338.83.38

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference AER/P78589 WO	FOR FURTHER ACTION		See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/GB99/00346	International filing date (day/month/year) 02/02/1999	Priority date (day/month/year) 04/02/1998	
International Patent Classification (IPC) or national classification and IPC C02F3/10			
Applicant TODD, John, James et al.			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I Basis of the report
- II Priority
- III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV Lack of unity of invention
- V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI Certain documents cited
- VII Certain defects in the international application
- VIII Certain observations on the international application

Date of submission of the demand 27/08/1999	Date of completion of this report 10.05.2000
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Schwaller, J-M Telephone No. +49 89 2399 8351



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB99/00346

I. Basis of the report

1. This report has been drawn on the basis of (substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.):

Description, pages:

1-9 as originally filed

Claims, No.:

1-9 as originally filed

2. The amendments have resulted in the cancellation of:

the description, pages:

the claims, Nos.:

the drawings, sheets:

3. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c));

4. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N) Yes: Claims
No: Claims 1, 7, 9

Inventive step (IS) Yes: Claims
No: Claims 1-9

Industrial applicability (IA) Yes: Claims 1-9
No: Claims

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB99/00346

2. Citations and explanations

see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re It m V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

D1: WO 9625367 A

D2: WO 8605811 A

D3: US-A-4915884

2. The requirements of Article 33 PCT are not met in the following respects:

- 2.1 D1 (cf. in particular the claims) discloses loose particulate material for use in waste water treatment, said material consisting of granules of plastic material carrying weighting material so that the particles have an average density of approximately 1.0 g/cc, the surface of the granules being provided with weighting material grains and concavities (obtained by dissolving salt grains adhered to the surface of the granules) to provide a habitat for microorganisms effective in waste water treatment.

According to page 8, lines 22-25 of D1 the said granules are obtained by heating the plastics material granules until they partially melt, and then they are allowed to contact the mixture of weighting grains and salt grains.

Inevitably during this operation at least a proportion of said weighting material grains will be carried within the granules, so that the subject-matter of at least independent claims 1, 7 and 9 is **no longer novel**, and said claims therefore do not meet the requirements of Article 33(2) PCT.

- 2.2 D2 (see the claims) discloses weighted microsponges for immobilizing microorganisms (thus said sponges are inevitably suitable for treating waste waters), said microsponges being made of a plastic material (see claim 3) and containing a weighting material such that the average density of the sponge is above about 1.05 (i.e approximately 1).

Since a sponge is inevitably covered with (con)cavities, the material of D2 also anticipates the subject-matter of at least independent claim 1 (Article 33(2) PCT).

2.3 D3 (especially Figure 2, column 5, line 24; Figure 5) also discloses a loose particulate material, which although being an intermediate product (cf. Figure 2), **fully destroys the novelty** of the subject-matter of at least independent claims 1 and 9 (Article 33(2) PCT).

2.4 Dependent claims 2-6 and 8 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of Article 33 PCT, said features being either known from the above prior art or conventional in the field of water treatment or within the competence of a skilled man seeking to improve the prior art materials known from D1 or D3.

Re Item VIII

Certain observations on the international application

The statement in the description on page 5, lines 26-30 implies that the subject- matter for which protection is sought may be broader than that defined by the claims, thereby resulting in lack of clarity (Article 6 PCT) when used to interpret them.

TENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference AER/P78589 WO	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/GB 99/ 00346	International filing date (day/month/year) 02/02/1999	(Earliest) Priority Date (day/month/year) 04/02/1998
Applicant TODD, John, James et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

contained in the international application in written form.

filed together with the international application in computer readable form.

furnished subsequently to this Authority in written form.

furnished subsequently to this Authority in computer readable form.

the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. Certain claims were found unsearchable (See Box I).

3. Unity of invention is lacking (see Box II).

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

as suggested by the applicant.

because the applicant failed to suggest a figure.

because this figure better characterizes the invention.

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None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

/GB 99/00346

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C02F3/10 C12N11/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 C02F C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category ^o	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 96 25367 A (PROCEFF LTD ; TODD JOHN JAMES (GB); HOPWOOD ADRIAN (GB)) 22 August 1996 cited in the application see the whole document	1, 4, 5, 7-9
A	---	6
Y	WO 95 17357 A (DOW CHEMICAL CO) 29 June 1995 cited in the application SPECIALLY FROM PAGE 4, LINE 26 TO PAGE 5, LINE 5 ---	1, 2, 4, 5, 9
Y	WO 86 05811 A (VERAX CORP) 9 October 1986 see page 10, line 9 - page 11, line 16 ---	1, 2 -/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

^o Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
"&" document member of the same patent family

Date of the actual completion of the international search

25 May 1999

Date of mailing of the international search report

04/06/1999

Name and mailing address of the ISA

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Authorized officer

Devisme, F

INTERNATIONAL SEARCH REPORT

International Application No

[REDACTED] /GB 99/00346

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4 915 884 A (CAPDEVILLE BERNARD ET AL) 10 April 1990 see the whole document -----	1-3, 7-9
Y	US 4 576 718 A (A. REISCHL ET AL) 18 March 1986 see column 5, line 29 - column 6, line 29 -----	1, 3, 5

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

GB 99/00346

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
WO 9625367	A 22-08-1996	AU 4671396 A CA 2211649 A EP 0871595 A FI 973133 A HU 9801413 A NO 973712 A NZ 301322 A PL 321777 A		04-09-1996 22-08-1996 21-10-1998 08-10-1997 28-09-1998 19-09-1997 24-09-1998 22-12-1997
WO 9517357	A 29-06-1995	US 5413972 A DE 69407624 D DE 69407624 T EP 0735988 A JP 9506852 T		09-05-1995 05-02-1998 09-04-1998 09-10-1996 08-07-1997
WO 8605811	A 09-10-1986	US 4861714 A AT 98699 T AU 5669486 A DE 3689400 D DE 3689400 T EP 0217917 A JP 62502936 T CA 1288370 A US 4997753 A US 4863856 A CA 1275955 A US 5100783 A		29-08-1989 15-01-1994 23-10-1986 27-01-1994 07-04-1994 15-04-1987 26-11-1987 03-09-1991 05-03-1991 05-09-1989 06-11-1990 31-03-1992
US 4915884	A 10-04-1990	FR 2612085 A AT 64109 T EP 0287136 A JP 63302994 A		16-09-1988 15-06-1991 19-10-1988 09-12-1988
US 4576718	A 18-03-1986	DE 3402697 A AT 25959 T CA 1249674 A DK 37085 A EP 0150747 A FI 850318 A, B, JP 60172399 A		01-08-1985 15-04-1987 31-01-1989 27-07-1985 07-08-1985 27-07-1985 05-09-1985